### Team Members
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### Initiative Specific Aims
1. Increase the percent of targeted patients with suspected UTI having appropriately collected specimens to 100%
2. Increase the proportion of targeted patients receiving pathway antibiotic (cephalexin) or recommended second line agent at discharge to 80%

### Key Improvement Steps
1. Develop algorithm for diagnosis and empiric treatment for uncomplicated UTI in children ages 3 months – 12 years old
2. Education for MD, nursing staff and culture nurse on algorithm
3. Solicit feedback from PED CPG
4. UTI resource center in PED provider work area
5. Badge card for MD and RN/NA with algorithm
6. Clear recommendations for specimen ordering
7. SmartPhrases for documentation of toilet training status, specimen collection type and instruction for specimen collection RN/NA
8. New collection devices added to RN algorithm
9. Incorporated algorithm into resident orientation in PED

### Results

#### Positive UA with Cephalexin Empiric Treatment
**Definition:** Number of patients aged 3 months-12 years, who meet inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm, with a positive UA (defined by Pediatric Ambulatory UTI Clinical Algorithm) and empiric treatment with cephalaxin (or approved second line agent with contraindication to cephalaxin)/Total number of patient aged 3 months -12 years, that met inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm with a positive UA (defined by Pediatric Ambulatory UTI Clinical Algorithm)

**Source:** Epic

Target = 80%

#### Specimen Source as Clean Catch or Catheterization
**Definition:** Number of patients aged 3 months-12 years, who meet inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm and had either urine culture or urinalysis completed, that had specimen source documented in EMR as clean catch or catheterization/Total number of patient aged 3 months -12 years, who met inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm and had either a urine culture or urinalysis completed

**Source:** Epic

Target = 100%
Insights and Future Directions

- Add Peds specimens to Quick Pick order list for ED (UA and Urine Culture)
- Heat ticket for erroneous specimen types in EPIC (e.g. acute dysuria as source for urine culture)
- Explore order set creation for uncomplicated UTI
- Add algorithm to website
- Update of bathroom signage for clean catch specimen collection
- Develop/procure patient education materials for specimen collection
- Continue with frequent monitoring of data for sustaining recommendations

Results

### UA and Urine Culture Complete

**Definition:** Number of patients aged 3 months - 12 years, who meet inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm, that had both UA and urine culture complete divided by Total number of Patient aged 3 months - 12 years, who met inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm

**Source:** Epic

**Target:** 90%

### Clean Catch Instruction

**Definition:** Number of patients aged 3 months - 12 years, who meet inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm and had either urine culture or urinalysis completed via clean catch specimen collection, that had instruction for clean catch procedure to patient and family documented in EMR divided by Total number of Patient aged 3 months - 12 years, who met inclusion criteria for Pediatric ED Uncomplicated UTI Algorithm and had either a urine culture or urinalysis completed via clean catch specimen collection

**Source:** Epic

**Target:** 100%